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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,252

07/05/2006

Michael Bauer

I431.140.101/FIN 480 PCT

3329

25281

7590

12/08/2008

DICKE, BILLIG & CZAJA

FIFTH STREET TOWERS

100 SOUTH FIFTH STREET, SUITE 2250

MINNEAPOLIS, MN 55402

EXAMINER

AYCHILLHUM, ANDARGIE M

ART UNIT

PAPER NUMBER

2841

MAIL DATE

DELIVERY MODE

12/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,252	Applicant(s) BAUER ET AL.	
	Examiner ANDARGIE M. AYCHILLHUM	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-35 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) 28-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 16-25, 28-35 and 39 is/are rejected.
- 7) ☒ Claim(s) 13-15, 26-27 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/23/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

2. Claims 11 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. (US 5,869,896) in view of Yoshizawa et al. (6,132,588).

Pertaining to claim 11, Baker et al. discloses a first **(21)** (i.e. such as sensor array is a charge coupled device (**CCD**)) (see Baker et al. figures **13-14**) and a second component **(21)** with connection sides of the components **(21)**;

A wiring block **(27, 31)** (see Baker et al. figure 15) with contact pads **(29)** (column **5**, lines **10-35**) (see Baker et al. figures **13 and 14**) on its outer sides (see Baker et al. figures **13 and 14**) and with lines in its volume (the space between the metal lines 31, 27), the lines electrically connecting (column **3**, lines **36-49**) the contact pads **(29)** on the outer sides to one another according to a circuit layout, the first component **(21)** and the second component **(21, on the other side)** being arranged on different non-opposite outer sides (see Baker et al. figures **13 and 14**) of the wiring block **(27, 31)** and the connections being connected to the contact pads **(29)**.

But, Baker et al. does not teach that a wiring block is made of plastic material.

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However, Yoshizawa et al. teaches a wiring block (12) is made of plastic material (column 3, lines 17-27).

Therefore, it would be obvious to one having ordinary skill in the art at the time the invention was made to make the wiring block of Baker et al out of a plastic material based on the teachings of Yoshizawa et al. in order to isolate conductor circuit pattern formed on the wiring block.

Pertaining to claim 39, Baker discloses the contacts of the first (21) and second components (21) are flip-chip contacts (see figs. 13-14).

3. Claims 12, 16, 25 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. (US 5,869,896) in view of Yoshizawa et al. (6,132,588) as applied to claim 11 above, and further view of Dourousseau (US 6,708,051 B1).

Pertaining to claims 12 and 25 Baker et al. discloses all limitation except the lines comprise carbonized plastic.

Dourousseau discloses lines comprise carbonized plastic (column 2, lines 3236)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant (s) claimed invention was made to provide lines with carbonized plastic as taught by Dourousseau to wiring of a sensor assembly disclosed by Baker et al. in order to provide flexible interconnected chain (interconnected by a cross bar) between the components.

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Pertaining to claims 16 and 38 Baker et al. as discloses a first **(21)** (i.e. such as sensor array is a charge coupled device (**CCD**)) (see Baker et al. figures **13-14**) and a second component **(21)** with connection sides of the components **(21)**;

A wiring block **(27, 31)** (see Baker et al. figure 15) with contact pads **(29)** (column **5**, lines **10-35**) (see Baker et al. figures **13 and 14**) on its outer sides (see Baker et al. figures **13 and 14**) and with lines in its volume (the space between the metal lines 31, 27), the lines electrically connecting (column **3**, lines **36-49**) the contact pads **(29)** on the outer sides to one another according to a circuit layout, the first component **(21)** and the second component **(21, on the other side)** being arranged on different non-opposite outer sides (see Baker et al. figures **13 and 14**) of the wiring block **(27, 31)** and the connections being connected to the contact pads **(29)**.

However Baker et al. does not disclose carbonized plastic.

Yoshizawa et al discloses lines comprise carbonized plastic (column 3, lines 17-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant (s) claimed invention was made to provide lines with carbonized plastic as taught by Yoshizawa et al to wiring of a sensor assembly disclosed by Baker et al. in order to provide energy supply line guiding chain that comprises flexible interconnected chain (interconnected by a cross bar) between the components.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. (US 5,869,896) in view of Yoshizawa et al. (6,132,588) and Durousseau (US

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6,708,051 B1) as applied to claim 16 above, and further view of Agrawal et al. (US 5,644,496).

Pertaining to claim 17, Baker et al. as modified by Yoshizawa et al. and Duroiseau further discloses all limitations except vertical line routing, horizontal line routing, or line routing at different solid angles, thereby achieving reduced length wiring paths and reducing propagation time delays within the wiring block.

However, Agrawal et al. discloses vertical line routing (**32**), horizontal line routing (**31**), or line routing at different solid angles, thereby achieving reduced length wiring paths (column **7**, lines **38-60**) and reducing propagation time delays (column **7**, lines **19-37**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant (s) claimed invention was made to provide lines and wiring path and reducing propagation time delays as taught by Agrawal et al. to wiring of a sensor assembly disclosed by Baker et al. in order to transfer signal to their final destination.

5. Claims 18-24 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Baker et al. (US 5,869,896) in view of Yoshizawa et al. (6,132,588) and Duroiseau (US 6,708,051 B1) as applied to claims 16 above, and further view of Andoh et al. (US 5,095,357).

Pertaining to claims 18-24, Baker et al. as modified by Yoshizawa et al. and Drousseau further discloses all limitations except the line routing is three-dimensional, configured spiral, sheet, as an electrical passive and inductive component.

However, Andoh et al. discloses the line routing is three-dimensional (column **9**, lines **26-34**), configured spiral (**2**) (see Andoh figure **2**), sheet (**31**) (column **7-8**, lines **1-19**), as an electrical passive (column **5**, lines **47-53**) and inductive component (i.e. such as passive component is inductive component).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant (s) claimed invention was made to provide the line routing is three-dimensional, configured spiral, sheet, as an electrical passive and inductive component as taught by Andoh et al. to wiring of a sensor assembly disclosed by Baker et al. in order to transmit signals to their final destination.

Allowable Subject Matter

6. Claims **13-15, 26-27 and 37** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art record neither teach nor render obvious the instant application claimed invention as a whole, in particular, the prior art fails to teach “wherein the lines comprise nanoparticles with carbonized short-circuit paths between the nanopaticles” as

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recited in claims 13 and 26, "wherein the lines comprise carbonized plastic, the lines including nanoparticles with carbonized short-circuit paths between the nanoparticles, including comprising wherein the lines comprise anisotropically oriented nanoparticles" as recited in claim 15, "wherein the lines comprise anisotropically oriented nanoparticles" as recited in claims 14 and 27, "wherein the wiring block comprise plastic with nanoparticles" as recited in claim 37.

Response to Arguments

7. Applicant's arguments with respect to claims 11-27 and 37-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andargie M. Aychillhum whose telephone number is (571) 270-1607. The examiner can normally be reached on (Mon-Fri from 8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dean A. Reichard/
Supervisory Patent Examiner, Art
Unit 2841

A.A.
November 17th, 2008

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